Response to the Letter Regarding Article “Efficacy of Antibiotic Prophylaxis Before the Implantation of Pacemakers and Cardioverter-Defibrillators”

We agree with Khan et al that *Clostridium difficile*–associated diarrhea (CDAD) is a major concern when using antibiotics. The choice of a single dose of cefazolin before the implantation of a pacemaker or cardioverter-defibrillator was done so for practical purposes.1 It is commonly used as the prophylactic antibiotic of choice before device implantation in many institutions throughout the world. We thought that it was important to perform a trial that reflected the current standard of care for the study to be applicable for clinicians. Of note, flucloxacillin was not available in Brazil at the time of the study, thus precluding its use.

Regarding assessment of side effects caused by the antibiotic regimen chosen, we did indeed have careful follow-up of patients throughout the study. During the follow-up visits, patients were asked to report whether they had had diarrhea (as well as several other symptoms that may have indicated signs or symptoms of infection). There were no patients who self-reported episodes of diarrhea throughout the follow-up period of 6 months. It is certainly possible that patients had mild episodes that the patient did not deem important enough to acknowledge to the clinician during follow-up.

In addition, we read the studies cited in the letter by Khan et al. Although it is possible to have CDAD from a single dose of antibiotics,2 the literature cited by the authors in the statement “Even a single dose of cefazolin can cause CDAD” refers to an article by Privitera et al.3 This article reported on the incidence of *C difficile* cultured from stool samples in 108 patients randomly assigned to a single dose of antibiotics (either cephalosporin or mezlocillin) before elective surgery. Although the results of this study did report that *C difficile* was cultured in stool samples (after surgery) in 23% and 3.3% of patients who received cephalosporin and mezlocillin, respectively, no patients had diarrhea. Although it is likely that a certain percentage of patients who received a single dose of cefazolin in our study became colonized with *C difficile*, the real benefits incurred from the antibiotic would seem to outweigh the definite risks of infection. We do acknowledge that asymptomatic carriers can be a source of transmission to other patients.

Khan et al raise several important points that deserve further investigation. We agree that it is possible that other antibiotic regimens may prove to be more beneficial than cefazolin, but we strongly believed that keeping the trial as simple as possible would provide the greatest clinical utility. We fully agree that another important question to be answered is whether the use of postprocedure antibiotics has any benefit or whether it simply increases the incidence of CDAD.

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References

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